

Application No. 09/875,192

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February 28, 2005

IN THE ABSTRACT

Please amend the abstract as follows:

A point-to-multipoint communications network connecting multiple subscribers to a single communications line ~~at the service provider distribution equipment, for example in a DSL communications system~~. A plurality of subscriber communications interfaces are connected in parallel to form a local group in which, ~~at any particular point in time, only one communications interface serves as a master communications interface and the other communications interfaces serve as slaves~~. Each communications interface may be capable of serving as the master communications interface according to a demand division multiplexing technique, which assigns master status based on upstream data demands. As a communications interface is switched to master status, the communications interface previously holding master status ~~out of the other serially connected communications interfaces~~ is switched back to slave status, ~~capable of receiving downloaded data from the DSL distributor and uploading data packets to the master communications interface~~. A plurality of communications interfaces can thus be connected to a single communications port without increasing the upstream transmission bandwidth requirements. ~~At the service provider, multiple network modems can each be designed to communicate at a different frequency, either fixed or variable, and thus assigned to single port, with each~~ Each network modem ~~communicating may communicate~~ at a frequency separated from the frequencies of the other network modems, to substantially increase the bandwidth of the transmission medium. The allocation of frequencies can be controlled dynamically by a microprocessor, based on any desired factors and/or bit error rate testing (BERT).